

In the Advisory Action, the Examiner contends that Applicants' previous arguments were not persuasive due to the breadth of the claim. The Examiner asserts that the "interactive connection" can include other elements such as controller 50 and in particular, the Examiner contends that the claimed interactive connection can be in the form of elements 50, 16, CE1 and CE2 which includes at least one gear pair and the connection can include controller 50. The nature of the differential gear set allows plural ratios to be achieved based on the particular speeds of the plural input and output guides. The Examiner's argument is based on the fact that allegedly, the breadth of claim 1 permits the inclusion of controller 50 as part of the claimed "interactive connection" and therefore, the cited reference discloses the claimed invention since the elements 16, CE1 and CE2 are capable of "setting themselves" due to *the action of the controller or actuator 50*.

In order to more clearly define the present invention, claim 1 has been amended to state that the transfer device is configured such that that depending upon a sense of rotation thereof and absent any activation of an actuator, the transfer device causes the planetary gear mechanism to lockingly engage a non-rotating component in the first mode and under the second mode causes components of the planetary gear mechanism to lockingly engage one another. Applicants respectfully submit that this feature more clearly recites what Applicants refer to as “self-setting” in that the transfer device is configured so that only the sense of motion of the components of the transfer device and based *solely* on the movements of the components of the transfer device, *without and absent* any instructions or activation from a controller or actuator or the like.

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requires activation of the controller 50 in order to perform the stated functions, reconsideration and withdrawal of the rejection of claim 1 are earnestly solicited.

As previously mentioned, the above feature added to claim 1 is described throughout the present application, including page 4, lines 16-20, of the originally filed application which describes a gear-reduction ratio that sets itself is achieved in the present system, e.g., by using free-wheeling clutches whose engagement depends on the sense of rotation. However, it will be understood that a gear ratio that sets itself can also be realized by means of helical gears (gears whose teeth are cut at an angle to the rotary axis of the gear), where the gears are pushed in one axial direction or the other depending on the sense of rotation. These features are now captured in the pending claims.

In Fig. 12 of the Tabata et al. reference, the clutches CE1 and CE2 are shown, and they are also described further in the written description, specifically, at col. 4, starting with line 57. In col. 5, lines 1-4, there is an explicit description that the clutches CE1 and CE2 are “friction type multiple-disc clutches” which are engaged and disengaged by means of a hydraulic actuator. A person of average skill in the art can easily imagine that if both clutches CE1 and CE2 are engaged at the same time, the planetary gear mechanism will be locked up, or if both clutches are disengaged, the planetary gear mechanism 16 will be in a kinetically undefined condition so that no torque is transmitted. To ensure that the clutches C1 and CE2 work together properly, there needs to be a sensor which detects the rotation of the planet-gear carrier. This sensor is shown in the drawing below the identification symbol CE1, but is not discussed further in the description. Consequently, one concludes that the arrangement and function of the clutches CE1 and CE2 of Fig. 12 of the cited Tabata et al. reference not only requires sensors, but that it also requires actuators which have to actuate the clutches under the command of an electronic control system.

The system of the present invention has no need for such sensors, actuators, and electronic controls because the measures as described by the present applicants allow the transmission ratios to set themselves **on their own** as described above. This simplifies the design of our system significantly in comparison to the cited Tabata et al. reference.

Based on the foregoing amendments and comments and based on the fact that claim 1 clearly recites the self-setting manner of the interactive rotary connection without and absent the activation of a controller, the rejection of claim 1 should now be withdrawn and the claims passed to allowance.

Claims 2-26 should be allowed as depending from what should now be an allowed independent claim 1.

New claim 27 has been introduced in the present amendment. Consideration and allowance of claim 27 are earnestly solicited. Claim 27 recites that the interactive rotary connection automatically sets itself to one of at least two rpm ratios depending on whether the electro-mechanical energy converter is working in the first or second mode. The self-setting ability of the interactive rotary connection is based solely on movement of components thereof based on a sense of rotation thereof and absent manipulation by an actuator.

For the same reasons discussed above with reference to claim 1, as amended, Applicants respectfully submit that claim 27 more clearly defines what Applicants regard as a self-setting interactive rotary connection which operates without any activation of a controller or actuator. This is clearly different than the arrangement in the prior art references where any setting of a connection results based on the activation and operation of a controller or actuator.

As a result, newly added claim 27 should be allowed.

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Respectfully submitted,

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